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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,493	04/22/2004	William David Schaefer	37041-11449	6931
2574	7590	12/07/2007		
JENNER & BLOCK, LLP ONE IBM PLAZA CHICAGO, IL 60611			EXAMINER EDWARDS JR, TIMOTHY	
			ART UNIT	PAPER NUMBER
			2612	
			MAIL DATE	DELIVERY MODE
			12/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/829,493

**Applicant(s)**

SCHAEFER ET AL.

**Examiner**

Timothy Edwards, Jr.

**Art Unit**

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on RCE filed November 2, 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 1 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-9 and 13-38 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claims 1-38 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caldwell '222, and further in view of Caldwell '393.

Considering (amended) claim 2, Caldwell discloses a solid state keyboard formed by, a) depositing a first layer of conductive material as a film onto at least a portion of a substrate (see col 4, lines 11-19 and col 5, lines 44-48); b) a second layer of conductive material onto at least a portion of the substrate (see col 5, lines 56-59); c) a portion of the second layer of conductive material being electrical coupled to a portion of the first layer of conductive material (see col 5, lines 8-25 and lines 56-59); d) a bonding pad (see col 2, lines 23-32, col 3, lines 4-11, col 5, lines 8-25 and fig 3, items 26 and 28); 1) except Caldwell '222 does not specifically recite a decorative layer of material deposit on a portion of the substrate. Caldwell '222 teaches the use of silver ink coating for

forming the two electrodes, the sense and strobe lines on a substrate (see col 5, lines 41-48). Caldwell '393 teaches the use of a decorative layer disposed on the surface of a substrate (see col 3, lines 49-55). One of ordinary skill in the art would readily recognize the input device of Caldwell '222 (i.e. keypad/keyboard) must have some means of identifying the keys on the keypad. Therefore, it would have been obvious to one of ordinary skill in the art the use of some type of indicia means is used in the Caldwell '222 system as taught by Caldwell '393. Caldwell '222 inherently addresses this limitation.

Considering claim 3, Caldwell discloses the limitation of this claim (see col 4, lines 11-21).

Considering claim 4, Caldwell discloses the limitation of this claim (see col 2, lines 23-32, col 3, lines 4-11 and col 5, lines 14-25).

Considering claim 5, Caldwell '222 does not specifically recite the decorative material comprise an organic material. Caldwell teaches the use of silver ink coating for forming the two electrodes, the sense and strobe lines on a substrate (see col 5, lines 41-48). Caldwell '393 teaches the use of a decorative layer disposed on the surface of a substrate (see col 3, lines 49-55). Examiner takes official notice organic material used as a decorative material is well known in the art. Obviousness is as stated in claim 2, part (1).

Considering claims 6, 7 the limitation of these claims are interpreted and rejected as stated in claim 5.

Considering claim 8, Caldwell '222 does not specifically recite the first layer of conductive material is substantially transparent. Caldwell '393 teaches depositing a transparent conductive material on a substrate to assist in seeing the indicia on a keypad (see col 4, lines 38-41). Therefore, it would have been obvious to one of ordinary skill in the art to use transparent conductive material in the Caldwell '222 system as taught by Caldwell '393 because both systems are concern with the depositing of conductive material on a substrate of a keypad.

Considering claim 9, Caldwell '222 does not specifically recite the connecting comprising soldering. Caldwell teaches the mounting of electrical components to the electrodes and sense line of his system (see col 5, lines 8-25). One of ordinary skill in the art readily recognizes the method of connecting these components may be by soldering or by any of several other known methods of connecting. Therefore, it would have been obvious to one of ordinary skill in the art to use any one of several connecting methods in the Caldwell system because Caldwell '222 discloses mounting electrical components on his substrate.

Considering claims 13, 18, the limitations of these claims are interpreted and rejected as stated in claims 2 and 3.

Considering claim 14, Caldwell discloses the limitation of this claim (see col 5, lines 49-52).

Considering claims 15, 16, 19, 20, 24, 25, 34, 37 the limitations of these claims are interpreted and rejected as stated in claim 5.

Considering claims 17, 35, 38 the limitation of these claims is interpreted and rejected as stated in claim 9.

Considering claim 21, Caldwell discloses the limitation of this claim (see col 5, lines 8-25 and fig 3, items 26 and 28).

Considering claim 22, Caldwell discloses the limitation of this claim (see col 5, lines 41-52 and fig 3, items 26 and 28).

Considering claims 23, 33 the limitations of these claims are interpreted and rejected as stated in claims 2 and 22.

Considering claim 26 the limitation of this claim is interpreted and rejected as stated in claim 8.

Considering claim 27 the limitation of this claim is interpreted and rejected as stated in claim 21.

Considering claim 28 the limitation of this claim is interpreted and rejected as stated in claim 22.

Considering claim 29, Caldwell '222 does not specifically recite the substrate separates the layer of decorative material from the first and second layers of conductive materials. Caldwell discloses depositing electrodes on a substrate. Caldwell '393 teaches a keypad where the substrate separates the layer of decorative material from the first and second layers of conductive materials (see col 3, lines 42-45). One of ordinary skill in the art readily recognizes a desired to keep the electrodes from being touched would lead one to separate these components as taught by Caldwell '393. Therefore, it would have been obvious to one of ordinary skill in the art to arrange the input device of Caldwell '222 as taught by Caldwell '393 because both references are concern with depositing electrodes on a substrate.

Considering claim 30, Caldwell '222 does not specifically recite the substrate does not separates the layer of decorative material from the first and second layers of conductive

materials. Caldwell discloses depositing electrodes on a substrate. Caldwell '393 teaches a keypad where the substrate does not separate the layer of decorative material from the first and second layers of conductive materials (see col 4, lines 1-3). Obviousness is as stated in claim 29.

Considering claims 31, 32, Caldwell '222 does not specifically recite the substrate separates the layer of decorative material from the first conductive material or the substrate does not separate the layer of decorative material from the first conductive material. Caldwell '393 teaches a keypad where the substrate separates the layer of decorative material from the first and second layers of conductive materials (see col 3, lines 42-45). Caldwell '393 teaches a keypad where the substrate does not separate the layer of decorative material from the first and second layers of conductive materials (see col 4, lines 1-3). One of ordinary skill in the art would readily recognize, given the teaching of Caldwell '393, the decorative material may be placed at any desirable location with respect to the electrodes, without any undue experimentation. Therefore, it would have been obvious to try different arrangements or placement of the decorative material with respect to the electrodes because of the teaching of Caldwell '393.

Considering claim 35 the limitations of this claim are interpreted and rejected as stated in claims 2, 3 and 22.



***Allowable Subject Matter***

4. Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 11, 12 depend from claim 10.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Engelman '213 teaches the use of organic material as a film for sensing electrodes. Engelman et al '913 teaches the use of field effect sensors in an input device. Riniker '593 and Sinn et al '074 teaches the use of multiple depositing of film on a substrate to construct an input device.

*If the claimed invention is amended, Applicant is respectfully requested to indicate the portion(s) of the specification, which dictate(s) the structure/description relied upon to assist the Examiner in proper interpretation of the amended language and also to verify and ascertain the metes and bounds of the claimed invention.*

Any inquiry concerning this communication should be directed to Examiner Timothy Edwards, Jr. at telephone number (571) 272-3067. The examiner can normally be reached on Monday-Thursday, 8:00 a.m.-6:00 p.m. The examiner cannot be reached on Fridays.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman, can be reached at (571) 272-3059.

Application/Control Number:  
10/829,493  
Art Unit: 2612

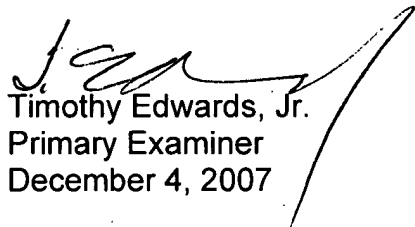
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Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-4700, Mon-Fri., 8:30 a.m.-5:00 p.m.

Any response to this action should be fax to:

(571) 273-8300 (for formal communications intended for entry).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> or contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy Edwards, Jr.  
Primary Examiner  
December 4, 2007